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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,479	06/08/2001	Laurent Frelechoux	CH9-2000-0023	2236

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EXAMINER	
LEE, ANDREW CHUNG CHEUNG	
ART UNIT	**PAPER NUMBER**
2664	

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/877,479	FRELECHOUX ET AL.	
	Examiner	Art Unit	
	Andrew C Lee	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the title is not required.

Correction is required. See MPEP § 608.01(b).

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

`Arrangement of the Specification`

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
(e) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(f) BRIEF SUMMARY OF THE INVENTION.
(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(h) DETAILED DESCRIPTION OF THE INVENTION.
(i) CLAIM OR CLAIMS (commencing on a separate sheet).
(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 – 5, 7 – 19, are rejected under 35 U.S.C. 102(e) as being anticipated by the article "Topology optimization of IP over ATM" by Frelechoux et al.

Regarding claims 1, 18, Frelechoux et al. discloses the limitation of a method for managing protocol information in a PAR-enabled device of a PNNI hierarchical network (Figure 1, page 123), the method comprising: assigning topology indicators to protocol information encapsulated in respective PAR PTSEs received by the PAR-enabled device from the network (page 123, column 2, lines 1 – 6; 10 – 14; page 130, column 2, lines 34 – 38), the assignment of a said information in a said PAR PTSE being dependent on the location of the network node which originated that PAR PTSE in the PNNI topology as seen by the PAR-enabled device (page 123, column 2, lines 10 – 14; 19 – 22); and supplying protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned thereto (page 123, column 2, lines 10 – 14; lines 19 – 22; column 131, column 1, lines 8 – 11).

Regarding claim 2, Frelechoux et al. discloses the limitation of a method according to claim 1 wherein the protocol information is supplied to the protocol device in an order dependent on the assigned topology indicators (page 131, column 1, lines 8 – 20).

Regarding claim 3, Frelechoux et al. discloses the limitation of a method according to claim 1 wherein the protocol information encapsulated in a received PAR PTSE is supplied to the protocol device with a tag comprising the assigned topology indicator (page 122, column 1, lines 4 – 7).

Regarding claim 4, Frelechoux et al. discloses the limitation of a method according to claim 1 wherein each topology indicator comprises a distance value indicative of a logical distance in said PNNI topology between the PAR-enabled device and the network node which originated the PAR PTSE containing the protocol information to which that topology indicator is assigned (page 127, column 1, lines 1 – 4; lines 13 – 18).

Regarding claim 5, Frelechoux et al. discloses the limitation of a method according to claim 4 wherein said logical distance is defined as a function of hop count (page 127, column 1, lines 13 – 18).

Regarding claim 7, Frelechoux et al. discloses the limitation of a method according to claimed wherein said logical distance is defined as a function of dynamic metrics of the PNNI network (page 127, column 2, lines 23 – 27).

Regarding claim 8, Frelechoux et al. discloses the limitation of a method according to claimed wherein each topology indicator comprises a level value indicative of the level in the PNNI hierarchy of the network node which originated the PAR PTSE containing the protocol information to which that topology indicator is assigned (page 127, column 1, lines 4 – 7; column 2, 28 – 30; page 128, column 1, lines 1 – 4).

Regarding claim 9, Frelechoux et al. discloses the limitation of a method according to claim 8 wherein said level value is indicative of the level of said network node in the PNNI hierarchy relative to the level of said PAR-enabled device in the PNNI hierarchy (page 128, column 1, lines 1 – 4).

Regarding claim 10, Frelechoux et al. discloses the limitation of a method according to claimed including, for protocol information in each of at least some received PAR PTSEs to which an identical topology indicator has been assigned (page 123, column 2, lines 1 – 9), testing for direct connectivity between said PAR-enabled device and another PAR-enabled device which first encapsulated that protocol information in a PAR PTSE (page 123, column 2, lines 10 - 18), and supplying the protocol information in said at least some PAR PTSEs to the protocol device in a manner which indicates any protocol information for which said direct connectivity is established as preferred over any protocol information for which said direct connectivity is not established (page 123, column 2, lines 19 – 32; lines 33 – 39).

Regarding claim 11, Frelechoux et al. discloses the limitation of a method according to claimed wherein the protocol information in said at least some PAR PTSEs is supplied to the

protocol device in ,in order dependent on whether said direct connectivity is established (page 123, column 2, lines 19 – 32).

Regarding claims 12, 13, Frelechoux et al. discloses the limitation of a method according to claimed including assigning the topology indicators, and supplying the protocol information to the protocol device in response to a request from the protocol device (page 124, column 1, lines 36 – 38; page 130, column 2, lines 34 – 38).

Regarding claim 14, Frelechoux et al. discloses the limitation of a method according to claim 12 wherein the PAR-enabled device is configured as a Proxy-PAR server and the protocol device is configured as a Proxy-PAR client (page 124, column 1, lines 24 – 26).

Regarding claim 15, Frelechoux et al. discloses the limitation of a method according to claimed wherein the step of assigning the topology indicators includes the step of deriving the topology indicators for the protocol information in respective PAR PTSEs (page 123, column 2, lines 1 – 6; lines 10 – 18; page 130, column 2, lines 34 – 38).

Regarding claim 16, Frelechoux et al. discloses the limitation of a method according to claimed wherein said protocol information comprises IP information (page 124, column 1, lines 15 – 22).

Regarding claim 17, Frelechoux et al. discloses the limitation of a method according to claimed wherein said protocol device comprises a router (page 122, column 2, lines 5 – 8; page 126, column 2, lines 46 – 49).

Regarding claim 19, Frelechoux et al. discloses the limitation of a method for facilitating the use of protocol information by a protocol device associated with a PAR-enabled device of a PNNI hierarchical network (Figure 1, page 123), the method comprising: in the PAR-enabled device, assigning topology indicators to protocol information encapsulated in respective PAR PTSEs received by the PAR-enabled device from the network (page 123, column 2, lines 1 – 6; 10 – 14; page 130, column 2, lines 34 – 38), the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location of the network node which originated that PAR PTSE in the PNNI topology as seen by the PAR-enabled device (page 123, column 2, lines 10 – 14; 19 – 22), and supplying protocol information encapsulated in each received PAR PTSE to said protocol device with a tag comprising the topology indicator assigned thereto (page 123, column 2, lines 10 – 14; lines 19 – 22; page 126, column 2, lines 50 – 51; page 127, column 1, lines 1 – 11; page 131, column 1, lines 8 – 11); and in the protocol device, selecting, in dependence on the tags supplied with the protocol information by the PAR-enabled device, at least one further protocol device with which to establish a relationship from further protocol devices identified by the supplied protocol information (page 131, column 1, lines 8 – 20).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 6, 20 – 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the article "Topology optimization of IP over ATM" by Frelechoux et al. in view of Iliadis (U.S. Patent No. 6614762 B1).

Regarding claim 6, Frelechoux et al. discloses the limitation of a method according to claimed wherein each topology indicator comprising a distance value indicative of a logical distance in said PNNI topology between the PAR-enabled device and the network node. Frelechoux et al. does not disclose expressly a method according to claimed wherein said logical distance is defined as a function of PNNI costs. Iliadis discloses the limitation of a method according to claimed wherein said logical distance is defined as a function of PNNI costs (Abstract, lines 1 – 7). It would have been obvious to modify Frelechoux et al. to include a method according to claimed wherein said logical distance is defined as a function of PNNI costs such as that taught by Iliadis in order to provide a method of generating a complex node representation of a peer group of nodes in a PNNI network system, wherein the per group including a plurality of border nodes, and a set of restrictive costs, defining the restrictive costs of respective paths between pairs of the border nodes.

Regarding claims 20, 21, 22, 23, 24, 26, 27, 28, Frelechoux et al. discloses the limitation of a PAR-enabled device for connection in a PNNI hierarchical network (Figure 1, page 123), Frelechoux et al. does not disclose expressly the PAR-enabled device comprising: memory for storing topology data, defining the PNNI topology as seen by the PAR-enabled device when connected in a said network, and PAR PTSEs received by the PAR-enabled device from the network; and control logic configured to assign topology indicators to protocol information encapsulated in respective received PAR PTSEs, the assignment of a said

topology indicator to protocol information in a said PAR PTSE being dependent on the location in said PNNI topology of the network node which originated that PAR PTSE; wherein the control logic is configured to manage the supply of protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned thereto. Iliadis discloses the limitation of the PAR-enabled device comprising: memory for storing topology data, defining the PNNT topology as seen by the PAR-enabled device when connected in a said network, and PAR PTSEs received by the PAR-enabled device from the network (column 11, lines 20 – 26; lines 38 – 40; column 14, lines 30 – 32); and control logic configured to assign topology indicators to protocol information encapsulated in respective received PAR PTSEs, the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location in said PNNI topology of the network node which originated that PAR PTSE (column 14, lines 4 – 27; lines 33 – 36); wherein the control logic is configured to manage the supply of protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned (column 6, lines 13 – 57). It would have been obvious to modify Frelechoux et al. to include the PAR-enabled device comprising: memory for storing topology data, defining the PNNI topology as seen by the PAR-enabled device when connected in a said network, and PAR PTSEs received by the PAR-enabled device from the network; and control logic configured to assign topology indicators to protocol information encapsulated in respective received PAR PTSEs, the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location in said PNNI topology of the network node which originated that PAR PTSE; wherein the control logic is configured to manage the supply of protocol information encapsulated in received PAR PTSEs to a protocol device associated

with said PAR-enabled device in a manner dependent on the topology indicators assigned theretosuch as that taught by Iliadis in order to provide a method of generating a complex node representation of a peer group of nodes in a PNNI network system, wherein the per group including a plurality of border nodes, and a set of restrictive costs, defining the restrictive costs of respective paths between pairs of the border nodes.

Regarding claims 25, Frelechoux et al. discloses the limitation of a PNNI hierarchical network comprising a plurality of PAR-enabled devices and a plurality of protocol devices (Figure 1, page 123, column 1, lines 29 – 40) , each PAR-enabled device being associated with a said protocol device for communication aver the network of protocol information generated by that protocol device, wherein said PAR-enabled devices include: at least one PAR-enabled device according to claim 20 (page 123, column 1, lines 29 – 45).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL AU:2664 26 February 2005

Ajit Patel
Primary Examiner